

Applicant: Jacob et al.
Application No.: 09/763,980

REMARKS

Claim 1 is currently pending in this application. By this Reply, claim 1 has been amended as noted above. No new matter has been introduced into the application by this amendment.

Claim 1 was rejected under 35 U.S.C. §103 as unpatentable over U.S. Patent 2,135,477 to Griswold in view of U.S. Patent 1,325,113 to Rohn and DE 35 22 600 A1 to Ebert. Griswold is cited as disclosing a differential having a bevel-pinion shaft supported by two angular-contact ball bearings. The Examiner admits that Griswold does not disclose the bearings as double-row bearings and now cites Rohn as disclosing similar angular-contact bearings with a double row construction. Ebert is cited as showing a deformable sleeve between the bearings. Applicants respectfully traverse this rejection.

Claim 1 recites a differential for a motor vehicle having a bevel-pinion shaft supported by two spaced and axially pretensioned angular contact ball bearings, with the angular contact ball bearings being unilaterally loadable double-row tandem angular-contact ball bearings. Each of the two angular-contact ball bearings (16, 17) includes shoulders (20, 21) and each race consists of a single shoulder. The races of each of the two angular-contact ball bearings have different diameters and the inwardly facing races of the bearings have a smaller diameter than the outwardly facing races. This allows both

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angular contact ball bearings to be pre-tensioned by adjusting a single threaded piece (11) on the bevel-pinion shaft.

Griswold discloses a differential with two spaced and axially loadable single row ball bearings. As admitted in the Action, there is no disclosure of double-row tandem angular-contact ball bearings.

Rohn discloses two double-row, angular contact ball bearing arranged on a shaft. However, as shown in the drawings and explained in the specification, the outer bearing sleeve (14) for each of the bearings has external threading, and the sleeves (14) are threaded into the mating threads (22, 23) at either end of the casing (21). This therefore requires the inwardly facing races of the bearings to have a larger diameter, creating a different loading than is preferred for a differential. Additionally, this requires the axial pretension of each of the bearings to be individually adjusted via tightening of the respective sleeve (14).

In view of this, there is no suggestion in the references themselves or in the knowledge generally available to those of ordinary skill in the art to combine these references as suggested by the Examiner. This is required in order to make a combination rejection under 35 U.S.C. 103. See *In re Fine*, 5 USPQ2d 1596 (Fed.Cir. 1988). The bearing arrangement of Rohn would be unsuitable for combining with Griswold as it requires individual pre-tensioning of each bearing. Accordingly, there

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would be no suggestion to combine the references as the arrangement of Griswold would not allow pretensioning of the bearing behind the bevel-pinion gear on the shaft.

Additionally, even if the references were combined in the manner suggested in the Action, which was not previously done by those skilled in the art even though both references have been available for over 75 years, this would result in a construction that places the larger diameter bearing races facing toward each other instead of facing outwardly and away from each other as is required in claim 1.

Ebert, which is cited as showing a deformable sleeve located between two conical roller bearings in a differential, does not address the above-noted distinctions between the present invention and the prior art.

Accordingly, withdrawal of the section 103 rejection of claim 1 is respectfully requested.

If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

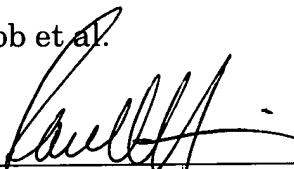
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In view of the foregoing amendment and remarks, Applicants respectfully submit that the present application, including claim 1, is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

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